Third Meeting, 10*th December*, 1866.

JOHN CRAWFURD, ESQ., F.R.S., VICE-PRESIDENT, in the Chair.

PRESENTATIONS.—*William Lane Booker, Esq.; W. C. B. Eatwell, Esq.*, M.D.; *and Rev. Thomas Wiltshire.*

ELECTIONS.—*Capt. H. Hamilton Beamish*, R.N.; *William Lane Booker, Esq.* (H.M. Consul, San Francisco); *William Debenham, Esq.; William Græme Dick, Esq.; William George Larkins, Esq.*, F.S.S.; *Robert James Mann, Esq.*, M.D.; *Henry M. Simons, Esq.; William Parker Townson, Esq.; Sir John E. Eardley Wilmot*, BART.

ACCESSIONS TO THE LIBRARY SINCE THE LAST MEETING, NOV. 26TH, 1866.—*Donations.* 'Meteorologische Waarnemingen in Nederland en Zijne Bezittengen en Afwijkingen van temperateur en Barometerstand op vele plaatsen in Europa intgegeven door het Konigklijk nederlandsch Meteorlogistch instituut.' Utrecht, 1852–62. 'Meteorological Observations made at Pietermaritzburg during the year 1865,' by Dr. Mann. 'The Official Gazette of the Institution of Hydronomical and Nautical Engineers.' A. W. Adams, Esq. 'Tide Tables for the British and Irish Ports.' Admiralty. 'Ubersicht der Thatigkeit der Nicolai-Hauptsternwarte, etc.' St. Petersburg. Otto Struve. 'Eisenbahn- Post- und Dampfschiffs- Karte von Europa,' von Dr. Henry Lange. Berlin. 'Guide du Baigneur et de l'Etranger à Aix-le-Bains,' presented by S. M. Drach, Esq. 'Notice sur les Charmettes, et sur les Environs de Chambéry, 1824,' *ib.* 'Relation d'un Voyage à Bruxelles et à Coblentz, 1791.' 'Boletin dos Annaes do Conselho Ultramarino.' 'Nautical Magazine.' 'The Alps of Hannibal,' by William John Law, M.A. 'First and Second Reports on the Plains and Rivers of Canterbury, New Zealand,' by W. T. Doyne. 'Report on the Bar and Navigation of the Douro,' by Mr. Consul Crawfurd. 'Relatizioni dei Consoli Veneti nella Siria.' Italian Ambassador. 'Selections: Records Bombay Government.' 'Revue Maritime et Coloniale,' Ministre de Marine, Paris. 'Mémoires de l'Académie Impériale des Sciences de St. Pétersbourg.' 'Transactions of the Historic Society of Lancashire and Cheshire.' 'Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences.' 'Mémoires de la Société des Sciences Naturelles de Strasbourg.' And continuations of Transactions, Journals, and Periodicals.

Purchases.—'Pomponii Melae de Chorographia libri tres.' Gustavus Parthey. Berlin, 1866. 'Histoire Naturelle des Glaciers Suisses,' by Grouner. Paris, 1770.

ACCESSIONS TO MAP-ROOM SINCE THE LAST MEETING.—Six sheets of

Fullarton's Atlas of England and Wales, on a scale of 4 miles to an inch; presented by the Author. Three sheets of Stieler's Hand Atlas; presented by Dr. A. Petermann. Admiralty Charts, 32 sheets, presented through the Hydrographer, Capt. G. H. Richards.

The following Papers were read:—

1. *On the Physical Geography of the Lower Indus.* By Colonel C. W. TREMENHEERE, R.E.

(Abstract.)

THE province of Sind extends from Mittee, on the north, where it joins the Punjab, to the sea near the mouths of the Indus; and consists of a continuous plain, varying in width, through which the river Indus passes. The physical aspect of this immense plain presents a very remarkable uniformity throughout—

1st. In the entire absence of channels for natural drainage.

2nd. In its almost uniform slope, both towards the sea, and away from the river-banks.

3rd. In its mineral character.

The slope of the valley, in a direct line to the sea, 330 miles, is 7·8 feet, or 9·3 inches per mile, and the lateral slopes on either side of the river are in many cases quite as much. The river, in fact, passes along a ridge, and is many feet above the land a few miles distant on either side of it.

The actual course of the river, measured on the map, is about 540 miles, and the surface slope during the inundation amounts to ·478 of a foot, or about 5·7 inches per mile. The soil consists entirely of a very fine siliceous deposit, mixed with a variable proportion of argillaceous matter, with much mica. Such is the uniform fineness of the soil, that it is impossible to find a grain of sand in the plain as large as a pin's head.

The Indus, like other tropical rivers, is subject to annual inundation, the extent of which has been carefully registered for many years, both at Sukkur and Kotree. At the former place the rise from the low-season level amounts to from 13 to 15 feet, while at Kotree, though lower down the river, the rise is generally about 2 feet more.

The amount of silt contained in the river-water is remarkably great. From a series of careful observations made at Sukkur and Kotree, it has been ascertained that, at the height of inundation, the solid matter in the water amounted to about 43·6 parts in 10,000 by weight, and at the end of December to 17 parts. The discharge of the river at the former period is about 380,000 cubic feet per second, and at the latter about 68,000. Assuming a mean discharge